



PAH-108

**IN THE UNITED STATES PATENT & TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicant: Joakim Harr : Examiner: Mahbubar Rashid
Title: Arrangement Related : Group Art Unit: 3683
To A Swing Damper :
Serial No. 10/530,158 :
Filed: April 1, 2005 :

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Mail Stop: Appeal Brief, Patents

APPEAL BRIEF

I. INTRODUCTION -

Applicant has appealed from the final rejection of Claims 1 - 20 made in the Official Action dated May 25, 2007. The Notice of Appeal has been timely filed in the Patent & Trademark Office on August 27, 2007.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date indicated below.

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10/18/07
(Date of Deposit)

II. REAL PARTY IN INTEREST -

The real party in interest is Indexator AB, the Assignee of all right, title and interest in and to the present patent application. Indexator AB is a Swedish corporation currently maintaining its principal place of business at S-922 21 Vindeln, Sweden.

III. RELATED APPEALS AND INTERFERENCES -

Applicant, Applicant's Assignee, and Applicant's attorney are unaware of any appeals, interferences, or judicial proceedings which may be related to, directly affect, or be directly affected by, or have a bearing on the Board's decision in the present Appeal.

IV. STATUS OF CLAIMS -

Applicant has appealed from the rejection of all pending claims 1 - 20. These claims were rejected over the applied prior art in the Official Action dated May 25, 2007 placing this patent application under final rejection. No claims have been allowed, withdrawn, objected to, or cancelled.

V. STATUS OF AMENDMENTS -

No Amendment or any other response to the Official Action dated May 25, 2007 placing this patent application under final rejection has been filed by Applicant.

VI. SUMMARY OF CLAIMED SUBJECT MATTER -

Appealed independent Claim 1 is directed to a swing damping arrangement in which a swing damper designated by reference numeral 1 includes an upper part designated by reference numeral 11 connected to a crane arm designated by reference numeral 2, and a lower part designated by reference numeral 12 carrying a tool or working implement designated by reference numeral 5 (page 3, lines 7 - 9 of the specification and Figure 1 of the drawing). The lower part 12 of the swing damper 1 can be connected to the tool 5 by a rotator designated by reference numeral 4 (page 3, line 9 of the specification; Figure 1 of the drawing). The upper part 11 and the lower part 12 of the swing damper 1 are pivotably connected to each other by a pivot joint designated by reference numeral 13 to result in pivotable movement of the upper part 11 and the lower part 12 around a pivot axle indicated by reference numeral 14 of the pivot joint 13 (page 3, lines 14 - 16 of the specification; Figure 1 of the drawing).

The damper 1 includes a brake arrangement designated by reference numeral 50, and discs designated by reference numerals 70, 80 which can swing around the pivot axle 14 of the pivot joint 13 (page 3, lines 19 - 21; page 4, lines 19 - 23 of the specification). The disc designated by reference numeral 70 is secured against rotation relative to the upper part of the swing damper 1 (page 4, lines 27 - 28 of the specification), and the discs designated by reference numeral 80 are secured against

rotation relative to the lower part 12 of the swing damper 1 (page 5, lines 3 - 4 of the specification). The swing damping arrangement includes a tensioning element designated by reference numerals 90, 110 (page 5, lines 8 - 9 and 16 - 17; page 6, lines 20 - 22 of the specification; and Figures 2 and 6 of the drawing) which function to press the discs 70, 80 together during a braking operation (page 7, lines 5 - 7 of the specification). The tensioning element 90 of the swing damping arrangement is located at least partially within one or two pivot bearings designated by reference numeral 46 located between the upper part 11 and the lower part 12 of the swing damper 1 (page 7, lines 24 - 25; page 4, lines 10 - 14; Abstract of the Disclosure, last sentence; and Figure 3 of the drawing).

Independent Claim 8 is directed to a method relating to a swing damper of the type defined by appealed independent Claim 1 (as discussed above) in which the swinging movement is braked as a result of the upper part 11 of the swing damper 1 being caused to entrain at least one disc 70 of the brake unit 60 as the upper part 11 swings (page 4, lines 25 - 28 of the specification), and as a result of the lower part 12 of the swing damper 1 caused to entrain at least one disc 80 of the brake unit 60 as the lower part swings (page 5, lines 3 - 4 of the specification). Discs 70, 80 are pressed together by a tensioning element (90, 110), during a braking operation (page 5, lines 8 - 13; page 5, lines 16 - 18; page 6, lines 20 - 22; and page 7, lines 5 - 7 of the specification). The tensioning element 90, 110 is located at

least partially within one or two pivot bearings designated by reference numeral 46 located between the upper part 11 and the lower part 12 of the swing damper 1 (page 7, lines 24 - 25; Abstract of the Disclosure, last sentence; page 4, lines 10 - 14 of the specification; and Figure 3 of the drawing).

VII. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL -

The sole ground of rejection presented for review on appeal is whether appealed Claims 1 - 20 are anticipated under 35 U.S.C. Section 102(b) by the Harr publication (WO 00/53522).

VIII. ARGUMENT -

a. Rejection of Claims 1 and 8 as being anticipated by the Harr publication:

In the Final Action dated May 25, 2007, pending Claims 1 - 20 were rejected under 35 U.S.C. Section 102(b) as being anticipated by the Harr publication (WO 00/53522). The prior art rejection of the appealed claims will be argued with reference to only independent Claims 1 and 8. If these independent claims are allowed, the remaining appealed dependent claims will be allowable, at least for the same reasons as their respective independent parent claims.

As discussed above, independent Claim 1 is directed to a swing damping arrangement, while independent Claim 8 is directed to a method relating to a swing damper.

The Harr publication applied to reject appealed independent claims 1 and 8 is directed to a generally similar type of device and method as disclosed and claimed by Applicant. More specifically, independent Claim 1 of the Harr publication is directed to an arrangement relating to a swing damper, while independent Claim 7 of the Harr publication is directed to a method relating to a swing damper. However, both the claimed arrangement and method of the applied Harr publication include structure, structural arrangement, and operational steps which are significantly different from the swing damping arrangement and method relating to a swing damper, as defined by appealed Claims 1 and 8. Thus, the only similarity between the disclosure of the Harr publication and the apparatus and method defined by appealed Claims 1 and 8 is that they are directed to the same basic objective of damping swinging movements.

The applied Harr publication discloses and claims an arrangement relating to a swing damper (independent Claim 1) which includes a brake disc (60) having a slot (64) that accommodates a brake unit fastener device (71). The method relating to a swing damper disclosed by the Harr publication (independent Claim 7) includes the step of sliding the brake unit fastener device (71) in an arcuate slot (64) within the brake disc (60) during a pendulum movement/swinging movement of a tool.

The arcuate slot 64 in the brake disc 60 accommodating the brake unit fastener device 71 in a sliding relationship is an

important aspect of the invention disclosed in the Harr publication. At page 4, lines 21 - 25, the Harr publication states:

"...The brake disc 60 also includes a circular or arcuate slot 64 through which a fastener element 71 on the brake unit 70 extends. The fastener element 71 has a certain degree of freedom in the slot 64, so that it is able to move along the slot 64".

The Harr publication, at page 5, lines 24 - 29, also states:

"...The tool 5 will swing when maneuvering the crane jib 2, wherewith swinging movement of the tool 5 will be damped or braked by the brake components 72 being pressed into braking abutment with the brake disc 60, wherewith the fastener device 72 slides into an arcuate slot 64 in the brake disc 60 in conjunction with braking said movement."

The swing damping arrangement defined by appeal independent Claim 1, and the method relating to a swing damper as defined by appealed independent Claim 8, although similar in general objective to that disclosed by the Harr publication, accomplish the objective in a significantly different manner. As discussed above, the sliding movement of a fastener device 71 of the brake unit 70 in a circular or arcuate slot 64 in a brake disc 60 is critical to the swing damper and method relating to a swing damper, as disclosed in the Harr publication. On the contrary, the arrangement and method defined by appealed independent Claims 1 and 8, respectively, do not employ a slot in a brake disc for accommodating movement of a brake unit fastener device for damping swinging movement of a tool. On the contrary, appealed independent Claim 1 includes different structure and structural arrangement for damping the swinging movement of a tool,

including a brake arrangement (50), having a brake unit (60) having discs (70, 80) swingable about a pivot axis (14) of a pivot joint (13) such that at least one of the discs (70) is secured against rotation relative to the upper part (11) of the damper, and at least one of the discs (80) is secured against rotation relative to the lower part (12) of the damper, and a tensioning element which functions to press the discs (70, 80) together in a braking operation, in which the tensioning element is located at least partially within one or two pivot bearings (46) located between the upper part (11) and the lower part (12) of the swing damper, as expressly recited in appealed independent Claim 1.

Similarly, the method defined by appealed independent Claim 8 includes the steps of braking swinging movement of a tool as a result of the upper part 11 of the damper being caused to entrain at least one disc (70) of a brake unit (60) as the upper part swings, and the lower part (12) of the damper being caused to entrain at least one disc (80) of the brake unit (60) as the lower part swings, the discs being pressed together by a tensioning element in a braking operation in which the tensioning element is located at least partially within one or two pivot bearings located between the upper part of the swing damper and the lower part of the swing damper, as expressly recited in independent Claim 8.

The structure and structural arrangement of the swing damping arrangement defined by independent Claim 1, and the steps of the method relating to a swing damper as defined by independent Claim 8, are significantly different from the swing damper and the method related to a swing damper, respectively, as disclosed in the Harr publication. Most significantly, a slot in the brake disc accommodating a fastener device of a brake unit in sliding relationship is critical to the apparatus and method disclosed by the Harr publication, while the swing damping arrangement and the method relating to a swing damper as defined by appealed independent Claims 1 and 8, respectively, achieve their objectives without the use of a slot in a brake disc for accommodating a fastener device for a brake unit in sliding relationship within the slot. The differences between the arrangement and method of appealed independent Claims 1 and 8, and the disclosure of the Harr publication, can be readily understood by comparing the "characterised clause" of appealed independent Claims 1 and 8 with the "characterised clause" of independent Claims 1 and 7 of the applied Harr publication.

Appealed independent Claims 1 and 8 have been rejected as being anticipated by the Harr publication. It is well established that a rejection of a claim as being anticipated by a prior art reference requires the Patent & Trademark Office to establish a strict identity of invention between each rejected claim and a single applied prior art reference. Stated in other words, a rejection of a claim as being anticipated by a prior art

reference is improper unless a single applied prior art reference teaches all features of the rejected claim, as arranged in the claim. See, for example, Connell v. Sears, Roebuck & Co., 220 USPQ 193 (Fed. Cir. 1983).

Although the basic, general objective of the apparatus and methods defined by appealed independent Claims 1 and 8 is similar to that of the applied Harr publication, the specific apparatus and method disclosed and claimed by Applicant as defined by appealed independent Claims 1 and 8 are distinctly different from the apparatus and methods disclosed by the Harr publication. As discussed herein, the positively recited structure, arrangement of structure, and method of operation of the brake arrangement of the swing damper and method of dampening defined by appealed independent Claims 1 and 8 are not taught by the applied Harr publication, and thus there is clearly no strict identity of invention between appealed independent Claims 1 and 8 and the disclosure of the applied Harr publication. Accordingly, the Harr publication does not anticipate either independent appealed Claims 1 or 8 when all positively recited features of these claims are considered in the patentability determination.

IX. CONCLUSION -

For the reasons discussed herein, Applicant submits that that appealed independent Claims 1 and 8 are allowable over the prior art applied in the Final Action, and that appealed dependent Claims 2 - 7 and 9 - 20 are allowable, at least for the

same reasons as their respective parent independent Claims 1 and 8.

Applicant respectfully requests that the final rejection of Claims 1 - 20 made in the Official Action dated May 25, 2007 be reversed.

Respectfully submitted,



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APPENDIX OF APPEALED CLAIMS

Claim 1. A swing damping arrangement, particularly an arrangement pertaining to a swing damper (1) for supporting a tool (5) or working implement that hangs from a crane arm (2), wherein the damper (1) includes an upper part (11) connected to the crane arm (2), and a lower part (12) which supports a tool (5) or working implement, either directly or via a rotator (4) for instance, wherein the upper part (11) and the lower part (12) are pivotally connected to each other via a pivot joint (13), and wherein the damper (1) includes a brake arrangement (50), characterised in that the brake arrangement (50) includes a brake unit (60) having discs (70, 80) that can swing around the pivot axle (14) of the pivot joint (13), in that at least one (70) of said discs is secured against rotation relative to the upper part (11), in that at least one (80) of said discs is secured against rotation relative to said lower part (12), in that the arrangement includes a tensioning element (90; 110; 130) which functions to press the discs (70, 80) together in a braking operation, and in that the tensioning element (90; 110; 130) is located at least partially within one or two pivot bearings (46) located between the upper part (11) and the lower part (12).

Claim 2. An arrangement according to Claim 1, characterised in that the brake unit (60) is situated in a space (200) between

two pivot bearings (46) located between the upper part (11) and the lower part (12).

Claim 3. An arrangement according to Claim 1, characterised in that the upper part (11) includes an abutment surface (22) for driving at least one disc (70).

Claim 4. An arrangement according to Claim 1, characterised in that the lower part (12) includes an abutment surface (34) for driving at least one disc (80).

Claim 5. An arrangement according to Claim 1, characterised in that at least one disc (70) has a brake lining (75) on at least one side thereof.

Claim 6. An arrangement according to Claim 1, characterised in that discs (70, 80) include a through-passing hole for the tensioning element (90; 110; 130).

Claim 7. An arrangement according to Claim 1, characterised in that the force generated by the tensioning element (90; 110; 130) in order to press the discs (70, 80) together is based on a spring force and/or on the application of a pressure medium.

Claim 8. A method relating to a swing damper, particularly to a swing damper (1) for carrying a tool (5) or working implement that hangs from a crane arm (2), wherein the swing

damper (1) includes an upper part (11) which is connected to the crane arm (2), and a lower part (12) which carries a tool (5) or working implement, either directly or via a rotator (4) for instance, wherein the upper part (11) and the lower part (12) are pivotally connected together via a pivot joint (13), and wherein the swing damper (1) includes a brake arrangement (50), characterised in that swinging movement is braked by virtue of said upper part (11) being caused to entrain at least one disc (70) of a brake unit (60) as said part swings, and by virtue of the lower part (12) being caused to entrain at least one disc (80) of the brake unit (60) as said lower part (12) swings, and in that the discs (70, 80) are pressed together by a tensioning element (90; 110; 130) in a braking operation where the tensioning element (90; 110; 130) is located at least partially within one or two pivot bearings (46) located between the upper part (11) and the lower part (12).

Claim 9. An arrangement according to Claim 2, characterised in that the upper part (11) includes an abutment surface (22) for driving at least one disc (70).

Claim 10. An arrangement according to Claim 2, characterised in that the lower part (12) includes an abutment surface (34) for driving at least one disc (80).

Claim 11. An arrangement according to Claim 3, characterised in that the lower part (12) includes an abutment surface (34) for driving at least one disc (80).

Claim 12. An arrangement according to Claim 2, characterised in that at least one disc (70) has a brake lining (75) on at least one side thereof.

Claim 13. An arrangement according to Claim 3, characterised in that at least one disc (70) has a brake lining (75) on at least one side thereof.

Claim 14. An arrangement according to Claim 4, characterised in that at least one disc (70) has a brake lining (75) on at least one side thereof.

Claim 15. An arrangement according to Claim 2, characterised in that discs (70, 80) include a through-passing hole for the tensioning element (90; 110; 130).

Claim 16. An arrangement according to Claim 3, characterised in that discs (70, 80) include a through-passing hole for the tensioning element (90; 110; 130).

Claim 17. An arrangement according to Claim 4, characterised in that discs (70, 80) include a through-passing hole for the tensioning element (90; 110; 130).

Claim 18. An arrangement according to Claim 5, characterised in that discs (70, 80) include a through-passing hole for the tensioning element (90; 110; 130).

Claim 19. An arrangement according to Claim 2, characterised in that the force generated by the tensioning element (90; 110; 130) in order to press the discs (70, 80) together is based on a spring force and/or on the application of a pressure medium.

Claim 20. An arrangement according to Claim 3, characterised in that the force generated by the tensioning element (90; 110; 130) in order to press the discs (70, 80) together is based on a spring force and/or on the application of a pressure medium.

RELATED PROCEEDINGS APPENDIX

NONE

EVIDENCE APPENDIX

NONE